

AMENDMENTS TO THE CLAIMS

Please amend the claims as indicated hereafter.

Claims:

1. (Currently Amended) For use in optical fiber connector apparatus an optical fiber containing member comprising:

an elongated ferrule member having a longitudinal bore extending from a front end thereof toward the rear end thereof; and

a clamping member within said bore for bearing against the optical fiber for fixing it in place;

the material of said clamping member comprising a shaped memory alloy (SMA) having primary and secondary configuration, said clamping member substantially surrounding and in gripping contact with at least a portion of the fiber in the primary configuration.

2. (Currently Amended) The optical fiber containing member as claimed in claim 1 wherein the shaped memory alloy material is an NTA NT alloy.

3. (Original) The optical fiber containing member as claimed in claim 2 wherein said NT alloy is a Ti Ni alloy.

4. (Original) The optical fiber containing member as claimed in claim 1 wherein said clamping member has a primary configuration and can be stressed to a secondary or deformed configuration different from said primary configuration.

5. (Original) The optical fiber containing member as claimed in claim 4 wherein said clamping member comprises a sleeve contained within said longitudinal bore, said sleeve having an axial bore therein having a diameter in the primary configuration less than the diameter of the fiber.

6. (Currently Amended) The optical fiber containing member as claimed in claim [[4]] 5 wherein said axial bore has a diameter in the secondary configuration greater than the diameter of the fiber.

7. Cancelled.

8. Cancelled.

9. (Currently Amended) The optical fiber containing member as claimed in claim [[7]] 26 wherein said ~~one~~ first clamping member has a planar strip primary configuration and bears against a fiber in said longitudinal bore to clamp it in place therein.

10. (Currently Amended) The optical fiber containing member as claimed in claim 9 wherein the side edges of said planar strip configuration are within said lobes in its primary configuration.

11. (Currently Amended) The optical fiber containing member as claimed in claim [[8]] 26 and further having a second clamping member within said bore having a V-shaped secondary configuration with the open end of the V-shaped being opposite the open end of said ~~one~~ first V-shaped clamping member.

12. (Currently Amended) The optical fiber containing member as claimed in claim 11 wherein said ~~one~~ first and said second clamping members each has a planar strip primary configuration wherein each of said clamping members bears against a fiber in said longitudinal bore to clamp it in place therein.

13. (Original) The optical fiber containing member as claimed in claim 12 wherein the side edges of each of said planar strip configuration clamping members are within said lobes.

14. (Withdrawn) A method of securing an optical fiber within a fiber containing member having a longitudinal bore for containing the fiber, said method comprising
fabricating a first clamping member of shape memory alloy in a primary configuration;
applying deforming stress to said first member to deform it to a secondary deformed configuration;
inserting said deformed member in said longitudinal bore;
inserting the fiber in said longitudinal bore; and
treating said deformed member to return it to its primary configuration whereby it applies clamping force to the fiber.

15. (Withdrawn) The method as claimed in claim 14 wherein said first clamping member, in its primary configuration, is a sleeve member having an axial bore therein, said axial bore having a diameter less than the diameter of the fiber.

16. (Withdrawn) The method as claimed in claim 15 wherein the axial bore in said first sleeve member in its deformed configuration has an enlarged diameter larger than the diameter of the fiber.

17. (Withdrawn) The method as claimed in claim 16 and further including the step of affixing said first sleeve member in its secondary configuration within the longitudinal bore.

18. (Withdrawn) The method as claimed in claim 17 and further including the step of inserting the fiber into the enlarged diametric axial bore.

19. (Withdrawn) The method as claimed in claim 18 wherein the step of treating said first deformed member to return it to the primary configuration comprises applying heat thereto.

20. (Withdrawn) The method as claimed in claim 14 wherein said first clamping member is formed into a planar strip in its primary configuration.

21. (Withdrawn) The method as claimed in claim 20 wherein the step of deforming said strip to a secondary configuration comprises imparting a V-shape thereto and inserting it into the longitudinal bore.

22. (Withdrawn) The method as claimed in claim 21 wherein the step of treating said first deformed member to return it to the primary configuration comprises applying heat thereto.

23. (Withdrawn) The method as claimed in claim 21 and further including the step of creating a second deformed planar strip having a V-shaped configuration and inserting it into said longitudinal bore with its open end of the V facing the open end of said first deformed member.

24. (Withdrawn) The method as claimed in claim 23 wherein the fiber is inserted into said longitudinal bore between the open ends of the V-shapes of the first and second clamping members.

25. (Withdrawn) The method as claimed in claim 24 and including the step of heating both said first and second V-shaped members to return them to their primary configuration with the fiber clamped therebetween.

26. (New) For use in optical fiber connector apparatus, an optical fiber containing member comprising:

an elongated ferrule member having a longitudinal bore extending from a front end thereof toward the rear end thereof and having first and second approximately diametrically opposed hollow lobes extending along at least a portion of its length;

a first clamping member within said bore for bearing against the optical fiber for fixing it in place;

the material of said first clamping member comprising a shaped memory alloy (SMA) having primary and secondary configurations; and

said first clamping member having V-shaped configuration in the secondary configuration.

27. (New) The optical fiber containing member as claimed in claim 6 wherein said sleeve is affixed within said bore of said elongated ferrule member.